

CLAIMS

1. Dried porous crumbs of a hydrogenated block copolymer which is obtained by hydrogenating a block copolymer comprising (a) at least one polymer block composed mainly of aromatic vinyl monomer units and (b) at least one polymer block composed mainly of conjugated diene monomer units, said hydrogenated block copolymer having a molecular weight of 70,000 or more,

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said dried porous crumbs having a water content of 1 % by weight or less and having the capability of absorbing an oil in an amount of 1.0 or more, in terms of the ratio of the weight of an oil, which is absorbed by said dried porous crumbs when said dried porous crumbs are immersed in said oil at 25 °C under atmospheric pressure for 1 minute, to the weight of said dried porous crumbs.

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2. A method for producing dried porous crumbs of a hydrogenated block copolymer, said dried porous crumbs having a water content of 1 % by weight or less,

which comprises the steps of:

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(1) providing an organic solvent solution of a

hydrogenated block copolymer which is obtained by hydrogenating a block copolymer comprising (a) at least one polymer block composed mainly of aromatic vinyl monomer units and (b) at least one polymer block composed mainly of conjugated diene monomer units, said 5 hydrogenated block copolymer having a molecular weight of 70,000 or more,

10 (2) removing said organic solvent from said solution by steam stripping, thereby obtaining an aqueous slurry containing wet porous crumbs of said hydrogenated block copolymer,

15 (3) subjecting said aqueous slurry to gravity dehydration, centrifugation dehydration or filtration dehydration to remove water from said slurry, thereby dehydrating said wet porous crumbs to an extent that the water content of the wet porous crumbs is in the range of from greater than 20 % to 90 % by weight, and

20 (4) exposing the resultant dehydrated wet porous crumbs to hot air in a hot-air dryer having a thermal conduction type heating means or having no thermal conduction type heating means, to thereby dry said dehydrated wet porous crumbs,

25 wherein the temperature of the hot air in said hot-air dryer satisfies the following relationship:

$$80 \leq t_1 \leq 1.5 \times M_w/10^4 + 155,$$

5 wherein t_1 represents the temperature ($^{\circ}\text{C}$) of the hot air in said hot-air dryer and M_w represents the molecular weight of said hydrogenated block copolymer, and

10 wherein when said hot-air dryer has a thermal conduction type heating means, the temperature of said thermal conduction type heating means satisfies the following relationship:

$$t_2 \leq 1.5 \times M_w/10^4 + 135,$$

15 wherein t_2 represents the temperature ($^{\circ}\text{C}$) of said thermal conduction type heating means and M_w is as defined above.

20 3. The method according to claim 2, wherein said wet porous crumbs obtained in said step (2) have a particle size distribution wherein the amount of those crumbs which do not pass through a 2-mesh screen is 40 % by weight or less, based on the
25 weight of the total mass of said wet porous crumbs,

the amount of those crumbs which pass through a 30-mesh screen and do not pass through a 42-mesh screen is 50 % by weight or less, based on the weight of the total mass of said wet porous crumbs, and the 5 amount of those crumbs which pass through a 42-mesh screen is 0.1 % by weight or less, based on the weight of the total mass of said wet porous crumbs.

4. The method according to claim 2 or 3, wherein 10 said dehydrated wet porous crumbs obtained in said step (3) have a particle size distribution wherein the amount of those crumbs which pass through a 6-mesh screen and do not pass through a 42-mesh screen is 50 % by weight or more, based on the weight of the 15 total mass of said dehydrated wet porous crumbs.

5. The method according to claim 4, wherein said dehydrated wet porous crumbs obtained in said step 20 (3) have a particle size distribution wherein the particle sizes of all of said dehydrated wet porous crumbs are within the range of from 50 to 150 % of the average particle size of said dehydrated wet porous crumbs.

25 6. The method according to any one of claims 2 to

5, wherein said hydrogenated block copolymer has a
molecular weight of from 90,000 to 800,000.

7. The method according to any one of claims 2 to
5, wherein said hydrogenated block copolymer has a
molecular weight of from 200,000 to 800,000.

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